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    Avni

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(54) **SPORTS SHOE WITH SENSING AND CONTROL**

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    *A61B 5/103* (2006.01)
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(52) **U.S. Cl.** ...................................... **600/592**; 600/595
(58) **Field of Classification Search** ................. 600/587, 600/592, 595
    See application file for complete search history.

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(57) **ABSTRACT**

Apparatus (**20**) is provided for improving athletic performance of a user, including a flexible insole (**40**), adapted for insertion into a shoe, the insole shaped so as to define one or more chambers (**22, 24**). The apparatus also includes a stimulator (**50**) and a control unit (**30**). The control unit is adapted to detect respective pressures in the chambers, and to drive the stimulator to apply a stimulation to the user responsive to the detected pressures and a desired parameter of athletic performance.

**9 Claims, 3 Drawing Sheets**